

Title (en)

CUTTING INSERT WITH ELLIPTICAL CUTTING EDGE

Title (de)

SCHNEIDEINSATZ MIT ELLIPTISCHER SCHNEIDKANTE

Title (fr)

ACCESSOIRE DE COUPE A BORD COUPANT ELLIPTIQUE

Publication

EP 1622747 A4 20081119 (EN)

Application

EP 04760821 A 20040421

Priority

- US 2004012221 W 20040421
- US 43512503 A 20030509

Abstract (en)

[origin: US2004223818A1] A cutting insert comprises an elliptical cutting edge. The cutting insert has a mounting hole through which a retention screw may pass, wherein the retention screw makes contact with the mounting hole in a seating plane that is perpendicular to the mounting hole. The cutting insert is adapted for use in a cutting tool comprising a tool body having a pocket partially defined by a floor that is parallel to a seating plane. The insert can have a shape complimentary to a tool body so as to cooperate with the tool body to form a continuous flute. According to one embodiment of the invention, the insert has a flank edge inboard with respect to the tool body. An insert according to another embodiment of the invention has a rake face with a positive cutting geometry.

IPC 8 full level

B23C 5/10 (2006.01); **B23C 5/20** (2006.01); **B23C 5/22** (2006.01)

CPC (source: EP KR US)

B23B 27/16 (2013.01 - KR); **B23C 5/109** (2013.01 - EP US); **B23C 5/20** (2013.01 - KR); **B23C 5/202** (2013.01 - EP US);
B23C 5/2213 (2013.01 - EP US); **B26D 1/12** (2013.01 - KR); **B23C 2200/361** (2013.01 - EP US); **B23C 2210/0442** (2013.01 - EP US);
B23C 2210/084 (2013.01 - EP US); **B23C 2210/165** (2013.01 - EP US); **B23C 2240/24** (2013.01 - EP US); **Y10T 407/1936** (2015.01 - EP US);
Y10T 407/2274 (2015.01 - EP US); **Y10T 407/23** (2015.01 - EP US)

Citation (search report)

- [X] WO 02055245 A1 20020718 - SANDVIK AB [SE], et al
- [A] DE 2102479 A1 19720803 - HERTEL K
- See references of WO 2004101235A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

US 2004223818 A1 20041111; US 7771142 B2 20100810; BR PI0410148 A 20060509; CA 2522842 A1 20041125; CA 2522842 C 20080819;
CN 100467239 C 20090311; CN 101032766 A 20070912; CN 101032766 B 20100825; CN 1784293 A 20060607; EP 1622747 A2 20060208;
EP 1622747 A4 20081119; JP 2006528085 A 20061214; JP 4976850 B2 20120718; KR 20060014045 A 20060214;
KR 20090055625 A 20090602; WO 2004101235 A2 20041125; WO 2004101235 A3 20050224

DOCDB simple family (application)

US 43512503 A 20030509; BR PI0410148 A 20040421; CA 2522842 A 20040421; CN 200480012639 A 20040421;
CN 200710084474 A 20040421; EP 04760821 A 20040421; JP 2006532442 A 20040421; KR 20057021212 A 20051108;
KR 20097007318 A 20090409; US 2004012221 W 20040421